

What is claimed as the invention is:

1. A method for analyzing the energy content of an electrical signal for detecting voice, said method comprising the steps of:

- 5 (a) digitizing the signal;
(b) defining a first threshold and a second threshold, wherein the first threshold is greater than the second threshold;
(c) comparing the digitized signal with the first threshold and the second threshold to produce a number representative of the comparison;
10 (d) repeating steps (b) and (c) to produce a plurality of numbers;
(e) converting the plurality of numbers into a first sum; and
(f) comparing the first sum to a third threshold, wherein a sum exceeding the third threshold is indicative of a voice signal.

- 15 2. The method as set forth in claim 1 wherein said converting step includes the steps of:
weighting each number representative of a comparison; and
summing the weighted numbers.

- 20 3. The method as set forth in claim 2 wherein larger numbers receive greater weight than smaller numbers to produce a quasi-RMS calculation.

4. The method as set forth in claim 1 and further including the steps of:
counting the number of numbers that exceed the first threshold;
25 comparing the number to a fourth threshold; and
indicating a voice signal when the first sum exceeds the third threshold and the number exceeds the fourth threshold.

5. The method as set forth in claim 1 and further including the steps of:
counting the number of numbers that exceed the first threshold;
30 comparing the number to a fourth threshold; and
increasing the first threshold when the number is greater than the fourth threshold.

6. The method as set forth in claim 1 and further including the steps of:
counting the number of numbers that are less than the second threshold;
comparing the number to a fourth threshold; and
5 decreasing the second threshold when the number is less than the fourth
threshold.

7. The method as set forth in claim 6 and further including the step of:
not counting the number of numbers that are less than the second threshold
10 while the first sum exceeds the third threshold.

8. The method as set forth in claim 1 wherein comparing step (c) uses only the
 m most significant bits of the digitized signal.

15 9. The method as set forth in claim 8 wherein $m = 6$.

10. A method for providing a digital representation of the energy content of
an electrical signal, said method comprising the steps of:

- (a) digitizing the signal;
- 20 (b) defining a first threshold and a second threshold, wherein the first threshold
is greater than the second threshold;
- (c) comparing the digitized signal with the first threshold and the second
threshold to produce a number representative of the comparison;
- (d) repeating steps (b) and (c) to produce a plurality of numbers;
- 25 (e) converting the plurality of numbers into a sum.

11. The method as set forth in claim 10 wherein said converting step includes
the steps of:
weighting each number representative of a comparison; and
30 summing the weighted numbers.

12. The method as set forth in claim 11 wherein larger numbers receive
greater weight than smaller numbers to produce a quasi-RMS calculation.